

**REMARKS**

The Office Action mailed from the U.S. Patent Office on July 25, 2006, has been reviewed and the Examiner's comments carefully considered. Prior to this paper, claims 2-19 were pending, with claims 17-19 being withdrawn. By this paper, Applicant does not cancel or add any claims. Therefore, claims 2-19 remain pending.

Applicant respectfully submits that the present application is in condition for allowance for at least the reasons that follow.

**Indication of Allowable Subject Matter**

Applicant thanks Examiner To for allowing claims 2-7 and 14-16, and for indicating that claims 9-12 contain allowable subject matter.

**Claim Rejections Under 35 U.S.C. §103(a)**

In the Office Action, Claims 8 and 13 were rejected under 35 U.S.C. §103(a) as being unpatentable over Takenaga (U.S. Patent Application Publication No. 2003/0105578) in view of Nakamura (U.S. Patent Application Publication No. 2002/0016663). Applicant respectfully traverses the rejection of these claims, and submits that these claims are allowable for at least the following reasons.

Applicant relies on MPEP § 2143, which states that:

[t]o establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

It is respectfully submitted that at least the first and third criteria of MPEP § 2143 have not been met in the Office Action.

The Cited References Do Not Suggest All Claim Recitations

Even if the first requirement of MPEP § 2143 were to be considered satisfied in the Office Action (which it is not, as explained below), the cited references still do not meet the third requirement, which is that “the prior art reference (or references when combined) must teach or suggest all the claim limitations.”

Claim 8 recites a preceding-vehicle following control system, including a controller arranged to, among other things, obtain road width indicative information and “execute a following control for following a preceding vehicle ahead of the host vehicle according to the *road width indicative information*” and “set a target inter-vehicle distance according to the *road width indicative information* in the execution of” following control. In an exemplary embodiment of the invention of claim 8, a distance desired to be maintained between a host vehicle and a vehicle that the host vehicle is following is set *on the basis of the width of the road* (e.g., number of lanes) on which the host vehicle is driving.

The Office Action asserts that Takenaga teaches vehicle following control according to a road width obtained from a road information acquisition unit “3,” citing Takenaga at paragraph 0054. However, while Takenaga does teach the acquisition of road shape information including road width, it does so only for the limited purpose of providing a fail-safe routine, and the teachings do not disclose the feature of executing a following control according to road width indicative information, as will now be described.

Takenaga discloses that information from a road information acquisition unit 3 is sent, along with information from an image-processing unit 1 and a radar unit 2, to an information-merging unit 4, and is then sent to a vehicle control unit 6 to control operation of the host vehicle. Takenaga further discloses that road width information is also acquired by road information acquisition unit 3. However, Takenaga never discloses that the road width obtained at the road information unit 3 is used to control the vehicle by vehicle control unit 6.

**Instead, Takenaga merely utilizes road width information to determine whether an object measured by radar unit 2 and an object measured by the image-processing unit 1 are, in fact, the same object.** (See paragraphs 0053-0057.) That is, Takenaga utilizes road width merely to verify that the system is functioning properly. Thus, Takenaga does not disclose or even suggest the feature of claim 8 where a controller is arranged to set a target inter-vehicle distance according to road width indicative information. Nakamura does not remedy this deficiency of Takenaga, and thus neither reference, even after combination, disclose or suggest each element of claim 8 or claim 13 for at least this reason.

In sum, even if the first requirement of MPEP § 2143 were to be considered satisfied, the third requirement of MPEP § 2143 is not satisfied in the Office Action, since the cited references do not teach each and every element of the present invention. Thus, the present claims are allowable.

Lack of Suggestion or Motivation to Modify or Combine the References

MPEP § 2143.01 states that “the prior art *must* suggest the desirability of the invention.” (MPEP § 2143.01, subsection 1, emphasis added.) The Office Action appears to rely solely on the Applicant’s disclosure for motivation to modify Takenaga to arrive at the invention of claims 8 and 13, and points to nothing in the prior art providing motivation to arrive at Applicant’s invention.

Specifically, the Office Action merely asserts that it would have been obvious “to include the teaching of Nakamura in order to maintain a safety distance between a host vehicle and a target vehicle, and therefore gain the advantage of reducing a collision between vehicle that may be caused from careless driving.” By this logic, it would have been obvious to combine any vehicle driving control system with any other vehicle driving control system because safer driving would result. That is, all new driving control systems would be obvious once each element was found in the vehicle driving control arts. Applicant submits that the conclusions in the Office Action completely vitiate the first requirement of MPEP § 2143.01. Applicant asserts that the alleged motivation to combine and modify the references is no more

than a sweeping general statement regarding an assumed conclusion, and thus does not meet the requirements to establish a *prima facie* case of obviousness.

Along the same lines, the Office Action all but relies on Applicant's disclosure for motivation to modify the primary reference to arrive at the inventions as claimed, and the Office Action cites nothing in the prior art that provides *specific* motivation to modify the references to arrive at either of claims 8 and 13. Instead, the Office Action provides the circular rationale that because a secondary reference (Nakamura) allegedly teaches an element missing from the primary reference (Takenaga), it would have been obvious to combine the two references because the secondary reference teaches advantages of general implementation of that reference. Applicant submits that such rationale is circular and relies on impermissible hindsight. In this regard, MPEP 2142, entitled "Legal Concept of *Prima Facie* Obviousness," states that "impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art." Applicant provides a rationale for utilizing road width and executing a following control for following a preceding vehicle according to the road width indicative information. It appears that the Office Action is utilizing the Applicant's own disclosure against him for motivation to modify the prior art. While it is permissible under certain circumstances to use teachings in the "background section" of an application to teach missing *elements* of the prior art, it is impermissible to use Applicant's application against them for motivation to combine or modify references. Indeed, there is not even an identification in the Office Action that the problems remedied by the Applicant's invention were even recognized in the art prior to recognition of the problem by the Applicant (*i.e.*, that a driver utilizing a preceding-vehicle following control system has a feeling of driving too close to a vehicle when the road width is narrow relative to a wider road width, *etc.*). In this regard, Applicant notes that MPEP 2141.02(III), states that a

**patentable invention may lie in the discovery of the source of a problem even though the remedy may be obvious once the source of the problem is identified.** This is part of the 'subject matter as a whole' which should always be considered in determining the obviousness of an invention under 35 U.S.C. § 103.

(Emphasis added.) Still further, the Office Action appears to rely on the alleged ease by which the references can be combined, contrary to the procedures stipulated in the MPEP. The MPEP specifically states that the “mere fact that references can be combined or modified does **not** render the resultant combination obvious unless the prior art also suggests the desirability of the combination.” (MPEP § 2143.01, subsection 3, first sentence, citations omitted.)

\* \* \* \* \*

In summary, because of the lack of suggestion or motivation in the prior art to modify the reference, the first requirement of MPEP § 2143 has not been met and, hence, a *prima facie* case of obviousness has not been established.

#### **Rejoinder of Claims 17-19**

Claims 17-19 stand withdrawn. Applicant respectfully requests that these claims be rejoined and allowed, as these claims are allowable for at least the same reasons that make claim 2 allowable. Applicant submits that no great burden would be placed on the PTO in rejoining and allowing these claims, as no further examination is necessary.

Further, claim 18 is a method claim. Pursuant to MPEP § 821.04 and *In re Ochiai*, 71 F.3d 1565, 37 USPQ2d 1127 (Fed. Cir. 1995), it is respectfully requested that this claim be rejoined and considered.

Also, claim 19 parallels claim 2, except that it utilizes means-plus-function language.

#### **Conclusion**

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Examiner To is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

Respectfully submitted,

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